

# FieldMonitor™ Enhancement

## *Intrinsically safe installations just got easier!*

Authored by:



Joe Taylor

Principal Engineer  
Bently Nevada Corporation  
e-mail: joe.taylor@bently.com

A set of new products in the FieldMonitor™ (1701) family is now available for applications requiring transducers or proximity probes to be intrinsically safe.

FieldMonitor™ is a distributed vibration monitoring system that integrates with programmable logic controllers (PLC®'s), distributed control systems, and PC-based control systems over standard industrial networks. (See "FieldMonitor™ – A revolutionary new product that helps OEMs and packagers reduce installation costs by 30% or more," Third Quarter 1998 *ORBIT*, Vol.19 No.3, page 21.) Until now, users who required intrinsic safety had to install separate external safety barriers and were also unable to take advantage of installation and wiring cost savings that can be realized by using the FieldMonitor™ system's internal Proximitor® sensors. The new Isolator Terminal Base (model 1701/06) and the 170190 Dual Galvanic Isolator eliminate the need for external safety barriers and enable internal Proximitor sensors to be used.

The 1701/06 Isolator Terminal Base (ITB) works with all the standard 1701 monitors, I/O modules, and internal Proximitor sensors, as well as the standard network adapters and the FieldMonitor™ Management Interface Module (model 1701/22). The 170190 Dual Galvanic Isolators plug directly into the ITB. Because it works with all the 1701 sensor interfaces, this single

isolator eliminates specifying, stocking, and wiring the variety of third-party safety barriers normally needed to support different sensor types. Another important benefit of the isolator is that an intrinsic safety earth is not necessary as it is with zener safety barriers.

This new addition to the FieldMonitor™ family offers even greater reduction in wiring and installation cost. One integrated package with a footprint of approximately 66 mm by 20 mm (2.6 in by 0.8 in) can include:

- eight Proximitor® sensors with intrinsically safe probes
- one intrinsically safe Keyphasor® probe
- eight channels of vibration monitors
- a network adapter interface to a controller over a standard industrial network
- eight points of simultaneous transient data capture provided over a separate and independent Ethernet network to Bently Nevada's Data Manager® 2000 machinery management software

FieldMonitor™ is the optimal solution for machinery packagers and OEMs offering cost-effective machinery protection systems that meet users' needs for connectivity to online condition monitoring software and all relevant machinery data. The addition of intrinsically safe transducer capabilities is a critical step in further reducing installation costs and expands the range of the applications for the FieldMonitor system. ☺

